Claims

[c1] 1.A flexible source wire for radiation treatment of diseases within a body comprising:

a flexible, hollow, elongated housing tube having a distal end and a proximal end, said housing tube constructed from a material ~~exhibiting little or no memory retention when bent~~ HAVING MEMORY RETENTION WHEREIN WHEN SAID HOUSING TUBE IS BENT SAID MATERIAL EXHIBITS LITTLE OR NO MEMORY RETENTION TO SAID BENT POSITION;

a flexible backbone wire having a proximal end, said proximal end of said wire being disposed in said housing tube, and further wherein the proximal end of said backbone wire is rounded; and

a radiation source or sources provided within said housing tube, said proximal end of said flexible backbone wire being adjacent to said radiation source or sources.

[c2] 2.The flexible source wire in accordance with claim 1 further including a plug which is sealed to said proximal end of said housing tube.

[c3] 3.The flexible source wire of claim 1, wherein said radioactive source is encapsulated within a neutron permeable material.

[c4] 4.The flexible source wire of claim 1, wherein said radioactive source is included within a thin walled-capsule.

[c5] 5.The flexible source wire in accordance with claim 1 wherein said housing tube is constructed from a material such as Nitinol or a titanium/nickel alloy.

[c6] 6.The flexible source wire in accordance with claim 2 wherein said housing tube is constructed from a material such as Nitinol or a titanium/nickel alloy.

[c7] 7.The flexible source wire in accordance with claim 3 wherein said housing tube is constructed from a material such as Nitinol or a titanium/nickel alloy.

[c8] 8.The flexible source wire in accordance with claim 1 wherein a portion of the inner surface of said proximal end of said housing tube exhibits a tapered funnel shape for ease of loading said radioactive source or sources within said flexible housing tube.

[c9] 9.The flexible source wire in accordance with claim 1, wherein said backbone wire is completely disposed in said housing tube.

[c10] 10.The flexible source wire in accordance with claim 1 wherein said backbone wire is affixed to the interior wall of said flexible housing tube at one or more locations.

[c11] 11. The flexible source wire in accordance with claim 1, wherein said backbone wire includes a distal end, and wherein said distal end is disposed within said tube.

[c12] 12.The flexible source wire in accordance with claim 1 wherein the outer surface of said housing tube is coated with a non-oxidizing agent.

[c13] 13.The flexible source wire in accordance with claim 12 wherein said non-oxidizing agent is gold.

[c14] 14.A flexible source wire for radiation treatment of diseases within a body comprising:

a flexible, hollow, elongated housing tube having a distal end and a proximal end, said housing tube constructed from a material ~~exhibiting little or no memory retention when bent;~~ HAVING MEMORY RETENTION WHEREIN WHEN SAID HOUSING TUBE IS BENT SAID MATERIAL EXHIBITS LITTLE OR NO MEMORY RETENTION TO SAID BENT POSITION;

a flexible backbone wire having a proximal end, said proximal end of said wire inserted into said tube, and further wherein the proximal end of said backbone wire is rounded;

a radiation source or sources provided within said housing tube, said proximal end of said flexible backbone wire being adjacent to said radiation source or sources.

[c15] 15.The flexible source wire in accordance with claim 14 further including a plug, which is sealed to said proximal end of said housing tube.

[c16] 16.The flexible source wire in accordance with claim 14 wherein said housing tube is constructed from a material such as Nitinol or a titanium/nickel alloy.

[c17] 17.The flexible source wire in accordance with claim 14 wherein a portion of the inner surface of said proximal end of said housing tube exhibits a tapered funnel shape for ease of loading said radioactive source or sources within said flexible housing tube.

[c18] 18.The flexible source wire of claim 14, wherein the radioactive source is included within a thin-walled capsule.

[c19] 19.The flexible source wire of claim 14, wherein the radioactive source is encapsulated within a neutron permeable material.

[c20] 20.The flexible source wire in accordance with claim 14, wherein said backbone wire is completely inserted in said housing tube.

[c21] 21.The flexible source wire of claim 14, wherein the backbone wire includes a distal end, and wherein the backbone wire is completely inserted such that the distal end is disposed within the tube.

[c22] 22.The flexible source wire in accordance with claim 14, wherein said backbone wire is affixed to the interior wall of said flexible housing tube at one or more locations.

[c23] 23.The flexible source wire in accordance with claim 14 wherein the outer surface of said housing tube is coated with a non-oxidizing agent.

[c24] 24.The flexible source wire in accordance with claim 14 wherein said non-oxidizing agent is gold.

[c25] 25.A flexible source wire for radiation treatment of diseases within a body comprising:

a flexible, hollow, elongated housing tube having a distal end and a proximal end, said housing tube constructed from a material ~~exhibiting little or no memory retention when bent;~~ HAVING MEMORY RETENTION WHEREIN WHEN SAID HOUSING TUBE IS BENT SAID MATERIAL EXHIBITS LITTLE OR NO MEMORY RETENTION TO SAID BENT POSITION;

a flexible backbone wire having a proximal end, said proximal end of said wire inserted into said tube, and further wherein the proximal end of said backbone wire is rounded;

[c17] 17.The flexible source wire in accordance with claim 14 wherein a portion of the inner surface of said proximal end of said housing tube exhibits a tapered funnel shape for ease of loading said radioactive source or sources within said flexible housing tube.

[c18] 18.The flexible source wire of claim 14, wherein the radioactive source is included within a thin-walled capsule.

[c19] 19.The flexible source wire of claim 14, wherein the radioactive source is encapsulated within a neutron permeable material.

[c20] 20.The flexible source wire in accordance with claim 14, wherein said backbone wire is completely inserted in said housing tube.

[c21] 21.The flexible source wire of claim 14, wherein the backbone wire includes a distal end, and wherein the backbone wire is completely inserted such that the distal end is disposed within the tube.

[c22] 22.The flexible source wire in accordance with claim 14, wherein said backbone wire is affixed to the interior wall of said flexible housing tube at one or more locations.

[c23] 23.The flexible source wire in accordance with claim 14 wherein the outer surface of said housing tube is coated with a non-oxidizing agent.

[c24] 24.The flexible source wire in accordance with claim 14 wherein said non-oxidizing agent is gold.

[c25] 25.A flexible source wire for radiation treatment of diseases within a body comprising:

a flexible, hollow, elongated housing tube having a distal end and a proximal end, said housing tube constructed from a material exhibiting little or no memory retention when bent;

a flexible backbone wire having a proximal end, said proximal end of said wire inserted into said tube, and further wherein the proximal end of said backbone wire is rounded;

a capsule inserted into said proximal end of said flexible elongated housing tube;

a radiation source or sources inserted into said capsule; and

a plug which seals said proximal end of said housing tube.

[c26] 26.The flexible source wire in accordance with claim 25 wherein said housing tube is constructed from a material such as Nitinol or atitanium/nickel alloy.

[c27] 27.The flexible source wire in accordance with claim 25 wherein a portion of the inner surface of said proximal end of said housing tube exhibits a tapered funnel shape for ease of loading said radioactive source or sources within said flexible housing tube.

[c28] 28.The flexible source wire in accordance with claim 25, wherein said backbone wire is completely disposed in said housing tube.

[c29] 29.The flexible source wire of claim 25, wherein the backbone wire includes a distal end, and wherein the backbone wire is completely inserted such that the distal end is disposed within the tube.

[c30] 30.The flexible source wire in accordance with claim 25 wherein said backbone wire is affixed to the interior wall of said flexible housing tube at one or more locations.

[c31] 31.The flexible source wire in accordance with claim 25 wherein the outer surface of said housing tube is coated with a non-oxidizing agent.

[c32] 32.The flexible source wire in accordance with claim 31 wherein said non-oxidizing agent is gold.